

Claims:

1. An apparatus, comprising:
 - a circuit board having a front edge and a major surface, the major surface having a recessed portion open to the front edge, the recessed portion being defined by a stop surface, opposing side surfaces, and a bottom surface;
 - 5 a plurality of conductive pads disposed on the major surface; and
 - a conductive layer disposed on at least a portion of the bottom surface;
 - the recessed portion adapted to receive a multiple conductor ribbon cable to provide thereby low-profile communication of the multiple conductor
 - 10 ribbon cable and the circuit board, the multiple conductor ribbon cable having a plurality of first conductors and a plurality of second conductors respectively associated with the plurality of first conductors;
 - 15 the plurality of conductive pads being adapted to receive respective first conductors of the multiple conductor ribbon cable;
 - said conductive layer adapted to receive respective second conductors of the multiple conductor ribbon cable.
2. The apparatus of claim 1, wherein the circuit board includes a conductive sheet spaced apart from the major surface and the bottom surface, and wherein
- 20 the apparatus further comprises:
 - a plurality of plated through-holes extending at least between the bottom surface and the conductive sheet, each of the plurality of plated through-holes being electrically connected to the conductive sheet and the conductive layer.
- 25 3. The apparatus of claim 1, wherein the stop surface is non-conductive, and wherein the conductive layer is defined by a non-conductive portion of the bottom surface abutting the stop surface, the non-conductive portion extending at least a length of the stop surface between the opposing sides.
- 30 4. The apparatus of claim 1, wherein the multiple conductor ribbon cable is a multiple conductor coaxial cable, wherein each of the plurality of first conductors is a center conductor of the multiple conductor coaxial cable, and wherein each

of the plurality of second conductors is an outer conductor of the multiple conductor coaxial cable.

5. The apparatus of claim 4, wherein each of the plurality of center conductors
5 is surrounded by an insulator layer, and wherein the insulator layer surrounding
each of the center conductors substantially abuts the stop surface.

6. The apparatus of claim 4, wherein a depth of the recessed portion is such
that a respective free end of each of the plurality of center conductors is
10 substantially parallel with the major surface of the circuit board.

7. A method of launching a coaxial cable onto a circuit board, the coaxial cable
having a width dimension and a plurality of center conductors, each of the
plurality of center conductors being surrounded by an outer conductor and
15 having a free end extending beyond an end of the outer conductor at a terminus
of the coaxial cable, the method comprising:

forming a recessed portion in a major surface of the circuit board, the
recessed portion being open to a front edge of the circuit board and being
defined by a stop surface, opposing side surfaces, and a bottom surface, a
20 distance between the opposing side surfaces being at least as wide as the
width dimension of the coaxial cable;

forming a plurality of conductive pads on the major surface of the circuit
board;

25 forming a conductive layer on at least a portion of the bottom surface of
the recessed portion;

connecting the free end of each of the plurality of center conductors to a
respective one of the plurality of conductive pads; and

30 connecting the outer conductor surrounding each of the center
conductors to the conductive layer.

8. The method of claim 7, wherein each of the plurality of center conductors is
surrounded by an insulator layer inside of the respective outer conductor, and
the method further comprises:

positioning the coaxial cable within the recessed portion such that the insulator layer surrounding each of the center conductors substantially abuts the stop surface.

5 9. The method of claim 7, further comprising:

providing a conductive sheet within the circuit board spaced apart from the major surface and the bottom surface; and

forming a plurality of plated through-holes extending at least between the bottom surface and the conductive sheet, each of the plated through-holes

10 being electrically connected to the conductive sheet and the conductive layer.

10. The method of claim 7, wherein the stop surface is non-conductive, and the method further comprises:

defining a non-conductive portion of the conductive layer abutting the
15 stop surface, the non-conductive portion extending at least a length of the stop surface between the opposing sides.

11. The method of claim 7, further comprising:

positioning the coaxial cable within the recessed portion such that the
20 free end of each of the plurality of center conductors is substantially parallel with the major surface of the circuit board.

12. A coaxial cable and circuit board apparatus, comprising:

a coaxial cable having a width dimension and a plurality of center
25 conductors, each of the plurality of center conductors being surrounded by an outer conductor and having a free end extending beyond an end of the outer conductor at a terminus of the coaxial cable;

a circuit board having a front edge and a major surface, the major surface having a recessed portion open to the front edge, the recessed portion
30 being defined by a stop surface, opposing side surfaces, and a bottom surface, a distance between the opposing side surfaces being at least as wide as the width dimension of the coaxial cable;

a plurality of conductive pads disposed on the major surface; and

a conductive layer disposed on at least a portion of the bottom surface;
wherein the free end of each of the plurality of center conductors is
connected to a respective one of the plurality of conductive pads and the outer
conductor surrounding each of the center conductors is connected to the
5 conductive layer.

13. The apparatus of claim 12, wherein each of the plurality of center conductors is surrounded by an insulator layer inside of the respective outer conductor, and wherein the insulator layer surrounding each of the center
10 conductors substantially abuts the stop surface.
14. The apparatus of claim 12, wherein the circuit board includes a conductive sheet spaced apart from the major surface and the bottom surface, and wherein the apparatus further comprises:
 - 15 a plurality of plated through-holes extending at least between the bottom surface and the conductive sheet, each of the plurality of plated through-holes being electrically connected to the conductive sheet and the conductive layer.
 15. The apparatus of claim 12, wherein the stop surface is non-conductive, and
20 wherein the conductive layer is defined by a non-conductive portion of the bottom surface abutting the stop surface, the non-conductive portion extending at least a length of the stop surface between the opposing sides.
 16. The apparatus of claim 12, wherein the coaxial cable comprises an outer
25 sleeve defining a ribbon coaxial cable.
 17. The apparatus of claim 12, wherein a depth of the recessed portion is such that the free end of each of the plurality of center conductors is substantially parallel with the major surface of the circuit board.

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